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MEDICAL.

Reſuſcitation of Life.

THE reſuſcitation of life is a ſubject deeply intereſting to humanity, inſtances of which, though rare in *any one neighborhood*, yet are *numerous* on *record*, and ſufficiently juſtify the moſt *active* meaſures, in all caſes of *apparent death*, without *apparent* cauſe, ſo long as there ſhall be wanting *the certain and unequivocal evidences* of diſſolution. This the *medical man* knows, but all people may not know it; and in caſes, where rays of hope may have been ſeen gleaming though the gloom, it is not improbable but the phyſician, whoſe *reputation* is his *life*, may have been compelled to deſiſt from meaſures of the moſt benevolent intention, leſt——he ſhould be "*laughed to ſcorn!*"

The caſe now to be related ſtrongly illuſtrates the propriety of theſe obſervations; and it is hoped ſuch *well authenticated facts*, in all caſes where there exiſts even *the ſhadow of a poſſibility* of remaining life, will teach people to be cautious in committing their friends too haſtily to the dark and ſilent grave.

A remarkable Account of the Reſuſcitation of Life, in the Caſe of the Rev. WILLIAM TENNENT, *of Freehold, New Jerſey; communicated by the Rev.* SAMUEL AUSTIN, *of Worceſter, with a Letter to the Editor, dated June* 17, 1806.

Extract from the Rev. Mr. AUSTIN's *Letter.*

"THE account which I mentioned to you, reſpecting Mr. TENNENT, has juſt been publiſhed in the Aſſembly's Magazine.

It corresponds with that given in my letters from Mr. BOUDINOT. The Magazines were sent to me by him; and as the publication appears under the patronage of the most respectable body of clergy in the United States, the account, as here presented, may be depended on as authentic.

"I wish you would transfer this account into the Register, and that some accurate theorist in the philosophy of animal nature would give us an exposition of this remarkable phenomenon. We have heard of many persons resuscitated after lying a considerable time apparently dead; but have we in such a form and in such a kind of restoration; especially, with *such an erasure and recovery of mental impressions?* Can these phenomena be reconciled to the system of materialism?"

The Account.

"The late Rev. WILLIAM TENNENT, of Freehold, in the county of Monmouth, in the state of New Jersey, of whom is the following account, was the second son of the Rev. William Tennent, minister of the gospel at Neshaminy, in Buck's county, Pennsylvania. After a regular course of study in theology, Mr. Tennent was preparing for his examination by the presbytery, as a candidate for the gospel ministry. His intense application affected his health, and brought on a pain in his breast, and a slight hectic. He soon became emaciated, and at length was like a living skeleton. His life was now threatened. He was attended by a physician, a young gentleman, who was attached to him by the strictest and warmest friendship. He grew worse and worse, till little hope of life was left. In this situation, his spirits failed, and he began to entertain doubts of his final happiness. He was conversing one morning with his brother, in Latin, on the state of his soul, when he fainted and died away. After the usual time, he was laid out on a board, according to the common practice of the country; and the neighborhood were invited to attend his funeral on the next day.

"In the evening his physician and friend returned from a ride into the country, and was afflicted beyond measure at the news of his death. He could not be persuaded it was certain; and on being told that one of the persons who had assisted in laying out the body thought he had observed a little tremor of the flesh, under the arm, although the body was cold and stiff, he endeavored to ascertain the fact. He first put his hand into warm water, to make it as sensible as possible, and then felt under the arm, and at the heart, and affirmed he felt an unusual warmth, though no one else could. He had the body restored

to a warm bed; and inſiſted that the people, who had been invited to the funeral, ſhould be requeſted not to attend. To this the brother (in whoſe houſe he then was) objected as abſurd, the eyes being ſunk, the lips diſcolored, and the whole body cold and ſtiff: however, the doctor finally prevailed; and all probable means were uſed, to diſcover ſymptoms of returning life. But the third day arrived, and no hopes were entertained of ſucceſs, but by the doctor, who never left him night nor day. The people were again invited, and aſſembled to attend the funeral. The doctor ſtill objected; and at laſt confined his requeſt for delay to *one* hour, then to *half* an hour, and finally to *a quarter* of an hour. He had diſcovered that the tongue was much ſwoln, and threatened to crack: he was endeavoring to ſoften it by ſome emollient ointment, put upon it with a feather, when the brother came in, about the expiration of the laſt period, and miſtaking what the doctor was doing, for an attempt to feed him, manifeſted ſome reſentment, and in a ſpirited tone ſaid, 'It is ſhameful to be feeding a lifeleſs corpſe;' and inſiſted with earneſtneſs, that the funeral ſhould immediately proceed. At this critical and important moment, the body, to the great alarm and aſtoniſhment of all preſent, opened its eyes, gave a dreadful groan, and ſunk again into apparent death. This put an end to all thoughts of burying him, and every effort was again employed, in hopes of bringing about a ſpeedy reſuſcitation. In about an hour the eyes again opened, a heavy groan proceeded from the body, and again all appearance of animation vaniſhed. In another hour, life ſeemed to return with more power, and a complete revival took place, to the great joy of the family and friends, and to the no ſmall aſtoniſhment and conviction of very many *who had been* RIDICULING *the idea* of reſtoring to life a dead body.

"Mr. Tennent continued in ſo weak and low a ſtate for ſix weeks, that great doubts were entertained of his final recovery; however, after that period he recovered much faſter, but it was about twelve weeks before he was completely reſtored. After he was able to walk the room, and to take notice of what paſſed around him, on a Sunday afternoon, his ſiſter, who had ſtaid from church to attend him, was reading in the Bible, when he took notice of it, and aſked her what ſhe had in her hand. She anſwered, that ſhe was reading the Bible. He replied, 'What is the Bible? I know not what you mean.' This affected the ſiſter ſo much that ſhe burſt into tears, and informed him that he was once well acquainted with it. On her reporting this to her brother, when he returned, Mr. Tennent was

found, upon examination, to be *totally ignorant of every tranſaction of his life* previous to his ſickneſs. He could not read a ſingle word, neither did he ſeem to have any idea of what it meant. As ſoon as he became capable of attention, he was taught to read and write, as children are uſually taught, and afterwards began to learn the Latin language under the tuition of his brother. One day as he was reciting a leſſon in Cornelius Nepos, he ſuddenly ſtarted, clapped his hand to his head, as if ſomething had hurt him, and made a pauſe. His brother aſked him what was the matter: he ſaid that he felt a ſudden ſhock in his head, and it now ſeemed to him as if he had read that book before. By degrees his recollection was reſtored, and he could ſpeak the Latin as fluently as before his ſickneſs. His memory ſo completely revived, that he gained a perfect knowledge of the paſt tranſactions of his life, as if no difficulty had previouſly occurred.* This event, at the time, made conſiderable noiſe, and furniſhed a ſubject of deep inveſtigation and learned inquiry to the real philoſopher and curious anatomiſt.

"The candid reader is left to his own reflections on this intereſting ſubject. The facts have been ſtated, and they are unqueſtionable.

"As ſoon as circumſtances would permit, Mr. Tennent was licenſed, and began to preach the everlaſting goſpel with great zeal and ſucceſs. The death of his brother, who had been ſome time ſettled as miniſter of the Preſbyterian church at Freehold, in the county of Monmouth, New Jerſey, left that congregation in a deſtitute ſtate. They had experienced ſo much ſpiritual benefit from the indefatigable labors and pious zeal of this able miniſter of Jeſus Chriſt, that they ſoon turned their attention to his brother, who was received on trial, and after one year was found to be no unworthy ſucceſſor of ſo excellent a predeceſſor. In October, 1733, Mr. Tennent was regularly ordained their paſtor, and continued ſo through the whole of a pretty long life, one of the beſt proofs of miniſterial fidelity."

* In a letter from the ſucceſſor of Mr. Tennent, in the paſtoral charge of his church, to the author of this account, dated Monmouth, New Jerſey, December 10, 1805, we find the following paragraph.

"Mr. Tennent informed me, that he had ſo entirely loſt the recollection of his paſt life, and the benefit of his former ſtudies, that he could neither underſtand what was ſpoken to him, nor write nor read his own name. That he had to begin all anew, and did not recollect that he had ever read before, until he had again learned his letters, and was able to pronounce the monoſyllables, ſuch as *thee* and *thou*; but that as his ſtrength returned, which was very ſlowly, his memory alſo returned."

AGRICULTURAL.

For the MEDICAL AND AGRICULTURAL REGISTER.

DR. ADAMS,

I KNOW not but that the following hints may be thought too ſtale and barren for an inſertion in your uſeful Regiſter, but I have found a great advantage from purſuing this method, for theſe three years paſt. Yours,

J. W. JOHNSON.

The Loſs ſuſtained by Farmers in ſuffering their Swine to run at large.

The common practice of ſuffering ſwine to run at large, during the ſummer months, is highly injudicious; for, without adverting to the damage which not unfrequently ariſes to the farmer by theſe means, I ſhall juſt notice *the total loſs of a large quantity of very excellent manure*, which may be eaſily made and preſerved, by adopting the following plan.

Let a pen or yard be made, of ſufficient dimenſions to contain the number of ſwine with convenience: it ought to be a little concave, with a large ſhallow trough ſunk in one corner for water; a ſhady place is to be preferred, or a ſlight ſhed may be put up, for a retreat in very warm weather.

It now remains for the farmer, after having ſhut in his hogs, to cut up and throw in all kinds of weeds, which are too often ſuffered to grow to maturity round the borders of his incloſures; mud from the bottom of ponds, and ſcrapings from the yard, the haulm of peas, beans and potatoes, fern or brakes, and to thoſe whoſe local ſituation will admit of it, eel graſs and rock weed will be excellent ingredients; theſe, with many other vegetable ſubſtances, may be put in at times when the farmer cannot be better employed: a little quick-lime, occaſionally ſprinkled upon the maſs, will greatly favor the decompoſition.

If this or a ſimilar mode was purſued, and the manure ſo made properly applied, it would tend in a great meaſure to ſtop the complaints which are frequently made of ſhort crops, thin graſs, worms, drought,* &c.

I am aware that objections may be made to the foregoing obſervations, by thoſe who are accuſtomed to turn out their ſwine

* It is generally underſtood that the dung of ſwine reſiſts the ill effects of drought.

to pick up a ſubſiſtence from the fruit of the oak, beech, and other nut trees. But when it is conſidered, that this ſuſtenance (however nutritious it may be) is of ſhort duration, *no prudent farmer* will forego the *real* advantages of occluſion, for the trifling benefit of having his hogs kept at free coſt for a few weeks. I do not think that any new ideas are here developed, but my only object is, to remind farmers how much of this invaluable article may be made with a little care and attention.

N. B. Our correſpondents who favor us with their names, would oblige us likewiſe, if agreeable to them, by giving us the *towns* in which they live.

Remarks.

The attention of the farmer is here called to a ſubject, where we believe it may be very profitably directed. Manure is the great *ſinew* of agriculture, as money is of war; and the making the *beſt* of every advantage or opportunity for increaſing the quantity of it, is one of the moſt *prominent traits* in the character of a *good farmer*.

Previous to receiving the foregoing communication, we had on our files the following article, on the properties of this kind of manure, ſelected for the Regiſter, which, as it preſents different views of the ſame ſubject, we give a place here.

Manure from Swine—how to increaſe the Quantity.

[From the New England Farmer.]

The dung of ſwine is a very rich and fat manure, and ſo cold as to ferment very ſlowly. It is ſo rich and oily as to be double in value to neat's dung. It will render the moſt dry and hungry ſoils exceedingly fruitful in a wettiſh ſeaſon, as I have found by experience. It reſiſts the ill effects of drought, and does moſt ſervice in a hot country. By its ſteady and gradual ſupply of a rich nouriſhment, it is peculiarly adapted for the growing of hops, pumpkins, running beans, and every plant which has long vines. Nothing can equal it for the growing of potatoes: it has produced me more than a peck in a hill on the pooreſt hungry ſands; or rather, I might ſay, *ſtraw only a little impregnated with the dung of hogs* has done it. This is ſo ſtrong a manure, that it anſwers well when *mixed with a large proportion of earth, weeds, ſtraw, or other bibulous ſubſtances.* It is almoſt incredible how great a quantity of good manure may be obtained, by *ſupplying a hog-ſty with rubbiſh* to mix with the dung. I have heard of *forty loads* of manure being made in a year, by means of one hog-ſty, and I have no doubt of its being practicable.

Experiment, ſhowing the Importance of ſelecting the firſt ripe Seeds, communicated to the Truſtees of the Maſſachuſetts Agricultural Society by JAMES FREEMAN, *September* 1, 1805, *and publiſhed by them in* 1806.

To aſcertain whether the ripening of ſeeds can be forwarded, by ſowing thoſe which are the earlieſt ripe, I have made experiments, all of which have been ſucceſsful, on ſeveral different ſorts. It will be ſufficient to mention one only.

In the year 1801, I planted the caſe-knife bean. The pods firſt formed, which are commonly thoſe neareſt the root, were reſerved; and when about the quantity of a peck was fully ripe, they were gathered on the ſame day. The largeſt and faireſt of the ſeeds were planted the next year, and the firſt formed pods reſerved as before. The ſame method has been purſued without any variation, till the preſent year: by means of which, whilſt the bean has not degenerated in its quality, the ripening of the ſeeds has been forwarded twenty-ſix days; as will appear from the following

TABLE.

Planted.	Gathered.	No. days.
1801, May 20,	Sept. 9,	112
1802, May 11,	Aug. 21,	102
1803, May 10,	Aug. 8,	90
1804, May 8,	Aug. 4,	88
1806, May 6,	July 31,	86

The firſt column denotes the time of planting the ſeeds; the ſecond, that of gathering the ſeeds which were firſt ripe; and the third, the number of days which elapſed between the time of planting and the time of gathering.

As in the ſecond and following years I anticipated the time of planting the ſeeds, (by which means fourteen days have been gained, in addition to the twenty-ſix noted above) to determine what effect later planting would produce, by giving the ſeeds more advantage from the heat of ſummer, in the years 1804 and 1805 I put into the ground a quantity of ſeed, about a week later than that which was firſt planted; the event which took place is exhibited in the following

TABLE.

Planted.	Gathered.	No. days.
1804, May 14,	Aug. 8,	86
1805, May 13,	Aug. 6,	85

As very little time has been gained in the preſent and in the preceding year, I ſuppoſe I have now reached, or nearly reached, the *ne plus ultra;* I delay not, therefore, to communicate to the truſtees of the Agricultural Society, the reſult of an experiment,

which confirms the important truth, taught in various parts of their uſeful publications, *That, to enſure an early and good crop, the ſeeds reſerved for future ſowing ſhould be thoſe which are the firſt ripe, and which are in other reſpects the moſt perfect.*

Cider Preſs on a new Conſtruction, by Mr. PAUL DODGE, *of New Caſtle, (Maine.)*

AN account of this preſs was communicated to the preſident of the Maſſachuſetts Agricultural Society, by Mr. Dodge, early the preſent year, and has ſince been publiſhed with other "*Papers*," by the truſtees of the Society. This account was alſo accompanied with a *pattern of the preſs*, which is now lodged in the ſecretary's office, at the new ſtate houſe, for the inſpection of all thoſe who may have the curioſity to ſee it.

The advantages propoſed to be gained by the uſe of this preſs are, a ſaving of labor, greater expedition in the work, and no occaſion for the uſe of water or ſtraw, which undoubtedly are an injury to the cider.

Mr. Dodge has not given us the *expenſe* of this preſs, which ſo far may be conſidered a defect in his account; the conſtruction of it, however, is ſimple, and the expenſe light, as any one muſt be perſuaded by an inſpection of the pattern lodged at the ſtate houſe. The following is Mr. Dodge's account of the uſe of this preſs, and his method of making cider, as publiſhed by the Maſſachuſetts Agricultural Society.

A new, clean, and eaſy Method to make Cider.

The apples, after being ground, are put into a curb or vat, and levelled with a ſhovel; then covered with a plank, and blocked up as uſual. It may be preſſed with a long beam or ſhort cider ſcrew, but hay ſcrews are beſt. The cider may be preſſed in two hours. Two men and a boy may make twenty barrels in one day. As no ſtraw is uſed, it may be made in cold weather, if the pumice does not freeze.

The girts muſt be four feet eight inches inſide, four inches and an half ſquare, made of the beſt of timber, with hinges and bolts in proportion; the ſlats three feet three inches long, one inch and a quarter thick, three inches wide, and half an inch apart. The eye bolts may be drawn with an iron bar with eaſe, and any quarter of the vat taken off, to take out the pumice. A curb of this ſize will hold pumice enough to make ten barrels of cider. I have made cider in this new way two years, and find it is done with half the uſual labor, and the cider clear. The above can be atteſted by many.

PAUL DODGE.

New Caſtle December 3, 1805.

DR. ADAMS,

FINDING by experience that the following receipt for pickling is a great improvement, I thought to communicate it for the Regiſter, if acceptable.

Receipt for Pickling.

After cleanſing your caſk, put firſt a layer of white oak leaves, and then a layer of cucumbers, or whatever your pickles conſiſt of, and ſo on to fill your caſk; interſperſe between each layer dill ſeed, muſtard ſeed, horſe-raddiſh, &c. and to every twenty cucumbers one bell of pepper. Form a compoſition of clear ſalt and water, not hardly ſufficiently ſtrong to bear an egg, to every gallon add one quart of good vinegar; ſcald and ſkim this pickle, and after cool to a degree of blood warmth, add it to your caſk, and cover it tight.

If rightly performed, this method will preſerve pickles the year round, and forms a very agreeable ſauce.

For the MEDICAL AND AGRICULTURAL REGISTER.

IN cold moiſt land, and in cold wet ſeaſons, when Indian corn is often ſo chilled or ſoaked in the ground as never to vegetate, is it beſt to cover it deep or ſhallow? to plant it in a deep furrow, or on a high ridge, made by turning two furrows together? and what kind of manuring, in ſuch caſes, is beſt? If any experienced farmer will communicate his remarks on theſe queries, through the medium of the Regiſter, he will receive the thanks of at leaſt one

NOVICE IN THE ART.

Warren, (Maine,) June 24, 1806.

To prevent Wheat Ruſt.

Mr. ISAAC YOUNG, of Georgia, mixed rye amongſt his ſeed wheat, and thus eſcaped the blaſt of his wheat. It was repeatedly tried till he was convinced of its efficacy: and then he ſowed five acres with wheat, ſurrounded with a liſt of twenty five feet breadth of rye; and this alſo ſucceeded; and being repeated, it is found a certain ſecurity to the wheat.

Bord. Huſ.

MISCELLANEOUS ARTICLES.

ARTICLE XXI.

For the MEDICAL AND AGRICULTURAL REGISTER.

Obſervations on the late Eclipſe.

You who delight to canvaſs nature's laws,
And trace effects to God, the great firſt cauſe,
Come, view his works amongſt the rolling ſpheres,
Whoſe conſtant motions mark days, months, and years.

A TOTAL eclipſe of the Sun is ſo rare a phenomenon, that but few generations have an opportunity of ſeeing that ſublime ſpectacle. Though one happens once in a very few years, to ſome part of the earth, yet it is uncommon for two to happen at the ſame place without the lapſe of ſeveral centuries between. To thoſe who never have an opportunity of beholding ſo grand a ſcene, a deſcription muſt be intereſting, though language can give but a faint one. To aſtronomers accurate and minute obſervations are eſſentially ſerviceable, in affording materials for future calculations.

In no ſcience has human ſagacity been more ſucceſsful in its reſearches, than in aſtronomy. To have a knowledge of the motions, magnitudes, and diſtances of the celeſtial bodies, ſufficient to predict, for a thouſand years hence, to a few ſeconds, the conjunctions and occultations of not only the Sun and Moon, but of the ſattellites of Jupiter, which are far beyond the ken of the ſtrongeſt eye ſight, when unaſſiſted by optical inſtruments, diſcovers at once what ſucceſs attends perſevering induſtry, and to what perfection human nature can arrive. And ſtill we are not to ſuppoſe, that aſtronomical inquiries have reached the bounds, which they cannot paſs. The ſcience is daily enriched with new diſcoveries.

The late total eclipſe of the Sun, beſides affording a moſt pleaſing and auguſt ſight to every beholder, and a ſource of wonder and contemplation to every thinking being, ſerved to confirm the former calculations of aſtronomers, and make corrections for future ones. The near agreement of computation with obſervation, ſhows that our preſent tables are nearly accurate.

By computation for the town of Groton, in latitude 42° 35½′ north, longitude 71° 26′ weſt, from Greenwich, the following is the reſult from Mayer's and Maſon's tables, for Ferguſon's would not make it total at this place :—

	hr.	*m.*	*s.*	
Beginning of the eclipſe, June 16,	10	5	40	Clock time. Central at Groton.
Beginning of total darkneſs,	11	24	30	
End of total darkneſs, - -	11	27	30	
End of the eclipſe, - -	12	52	00	
Duration of total darkneſs,		3	00	
Duration of the eclipſe, -	2	46	20	

By obſervations made at this place with an acromatic teleſcope, which magnifies twenty-ſix times in lineal dimenſions, it happened as follows:—

	hr.	*m.*	*s.*	
Beginning of the eclipſe, -	10	3	30	Clock time.
Beginning of total darkneſs,	11	22	00	
End of total darkneſs, - -	11	27	00	
End of the eclipſe, - -	12	47	00	
Duration of total darkneſs,		5	00	
Duration of the eclipſe, -	2	43	30	

The time was taken by a well regulated clock, compared with a meridian line the day before, and on the ſame day of the eclipſe; but, owing to ſeveral inconveniencies, there may perhaps be an error of ten ſeconds in ſome of the times, as above ſtated. The computations were, therefore, as near as could be expected, except in the time of total darkneſs, in which the earth's motion on its axis, a very material circumſtance, was not conſidered.

The centre of the Moon's ſhadow, in this eclipſe, firſt touched our globe in the Pacific Ocean, latitude 24° north, longitude 138° weſt, it being there ſunriſe. It traverſed the earth in a curvilineal direction, bending northerly of eaſt, and paſſing our longitude between latitude 41° 40′ and 43° 28′, till it arrived off the ſouthern ſhores of Nova Scotia, where it was noon. Then inclining ſoutherly of eaſt, it left the earth in the interior of Africa, latitude 12° north, longitude 12° eaſt, it there being ſunſet. The dark ſhadow was about 118 ſtatute miles in diameter, but covered very different portions of the earth's ſurface, according to its angle of inclination. At this place it covered a ſpace 125 miles in diameter. The abſolute time of its paſſing over the earth was three hours eleven minutes, moving at the rate of 38 miles per minute on the plane of the horizon. Computing from this, at the place where the eclipſe was total and central at noon, the duration of total darkneſs would be but three minutes; but the place ſo ſituated was alſo moving eaſtward 13 miles per minute, which prolonged the duration to five minutes, which exactly agrees with the obſervations made at this place. Our motion was not materially different from the place where it was total on the meridian. At Boſton the total darkneſs was ſhorter in duration than here, becauſe it was not ſo near the centre of the ſhadow.

The ſky was unuſually clear and ſerene; not a cloud appeared in the hemiſphere; the leaves ſcarcely waved by the wind.

The thermometer, which, in a very cool poſition at the commencement of the eclipſe, ſtood at 66, when the Sun was about half obſcured began to fall; the light was perceptibly diminiſhed, Venus appeared, and a gloom began to ſpread over the face of nature.

When the Sun was nine or ten digits obſcured, honey bees were obſerved to be faſt gathering to the hives; the gloom greatly increaſed; a chilly dampneſs came on; the Moon's dark ſhadow was plainly ſeen approaching in the weſt, having the appearance of a dark thunder cloud, undefined at the edges. Juſt as the Sun was wholly obſcured, the bees were ſtill in their hives; doves rapidly flew to their windows, dodging as if purſued by a hawk; birds ſung their evening ſongs; tame fowls rooſted under the firſt ſhelter they found; horſes and cattle diſcovered their conſternation, by ceaſing to feed and looking round with a wild ſtare. And what muſt have been the aſtoniſtment of the uninſtructed ſavages, on our weſtern coaſt and in Africa, when they beheld the great ſource of light and warmth, perhaps the only god they worſhipped, hiding his face, and leaving them, for aught they knew, in everlaſting night! The whole of animated nature was concerned in the ſcene, but enlightened man alone could view with compoſure, and adore its great Author.

When the Sun was entirely hidden, white ſtreams darted from all ſides around the moon, terminating in points at the diſtance of ſeveral degrees, not ſpreading equably in every part, but in pencils or ſpears, ſome larger and brighter than others, very much reſembling an aurora boreälis. The edge of the Moon jagged, appearing like a far diſtant mountainous horizon; and the eaſtern part was variouſly tinged with reddiſh light, which ſoon diſappeared, the deepeſt notches or vallies retaining it the longeſt. The ſame phenomenon was exhibited on the weſtern edge, previous to the Sun's emerging. This had much the appearance of a well defined edge of a very denſe cloud, behind which the Sun has juſt fallen; and was ſuppoſed to be parts of the Moon, on which the Sun ſhined, viſible through the deep vallies, or refractions of light through the Moon's atmoſphere. Six or ſeven of theſe vallies were deeper and longer perceptible than the reſt. The quantity of darkneſs cannot be well compared, as it was very different from that of night, being exceſſively gloomy. A familiar countenance could not be known but a few feet diſtant.

Beſides the planets Mars, Venus, and Mercury, many of the fixed ſtars appeared, among which were Sirius, Procyon, ſeveral in Orion and in Urſa Major. Seventeen were enumerated, and many more were undoubtedly viſible. The thermometer fell

to 60°. The dew on the graſs was ſufficient to wet the ſhoes, by walking through it.

The departing light was eaſily endured by the naked eye; but during the total darkneſs the pupil was ſo much dilated, that the firſt appearance of the Sun was inſufferably bright. The cocks immediately gave the returning light the uſual ſalute. All nature ſeemed inſtantly reanimated. The ſcene ſurely bore no faint reſemblance to that, when firſt the Almighty ſaid, "Let there be light: and there was light."

The inverted images of the Sun in the ſhades of trees were noticed in many places, though not in this. A friend, who was a few miles north of the dark ſhadow, not having ſo many things to arreſt his notice, paid particular attention to this beautiful phenomenon. He obſerves, that the innumerable images of the Sun, ſhowing the exact ſtate of the eclipſe, in all its ſtages, in an inverted poſition, afforded a pattern too ſuperlatively beautiful for any painter on earth to imitate. Any perſon may ſatisfy himſelf that this would be the caſe, in ſuch a partial light, by letting the ſun ſhine into a room through a ſmall hole, whether round or not, and an inverted image will be formed.

It is ſaid, that at ſome places congealed miſt was obſerved, floating in the air. Something ſimilar was here ſeen, at a very great height; but it was ſuppoſed to be the cotton like ſubſtance which attaches to the ſeeds of certain trees and plants.

Whether the Moon have an atmoſphere, is a queſtion, which, it ſeems, is yet undetermined. An opportunity for ſpeculations on the ſubject was offered in this eclipſe. The opinion and reaſonings of aſtronomers on the ſubject would be highly gratifying to the writer, and probably to the public at large.

Reſult of Meteorological and other Obſervations, for July, 1806; made at DEERFIELD, WARWICK, MASON, PORTSMOUTH, SMITHFIELD, (R. I.) and BOSTON:—For the Medical and Agricultural Regiſter.

July, 1806.	*Mean degs. at ſun-riſe.*	*Mean degs. at 2 P. M.*	*Mean degree of the month.*	*Greateſt heat in the month.*	*Leaſt heat in the month.*	*Prevailing winds.*	*Marriages.*	*Births.*	*Deaths.*
Deerfield	60⅔	80½	69	15,26 ds. 91°	5th day 46°	S. & S. W.			2
Warwick	57½	80	68⅝	17 95	6 52	N.W.&S.W.			
Maſon	64	74	69	26 83	31 58	W. & N. W.			
Portſmouth	63⅕	75⅕	69⅕	26 88	31 54	E. & N. E.			
Smithfield	63 1/10	76½	68 1/10	10, 28 87	14 54	N. & N. W.			
Boſton	62⅘	77	69⅝	26 93	31 55	E. & N. E.			

WEATHER.

1*st day*, foggy, cloudy; a little rain; *Smithf.* 0,3 in. *Portſ.* fine rain in the night.
2—cloudy, fair 10 P. M. wind N.W.
3, 4, 5, 6—fair, rather cool, fine hay weather. *Sund.* *Warw.* rainy morning, 2 inches, fair afternoon. briſk winds.
7—foggy, cloudy, little rain, fair.
8, 9, 10—fair, ſmall ſhowers, with thunder and light. in ſome places; *Smithf.* 0,5 in. *Portſ.* fine rain moſt of the 10th; *Maſon*, a thunder ſtorm, with hail. *Moon's laſt quarter.*
11—cloudy, ſome places rain, *Warw.* 0,25 inch; fair afternoon.
12—cloudy, fair.
13, 14, 15, 16—*Sund.* fair, cool for the *Portſ.* fine ſhower. ſeaſon. *New Moon.*
17—clouds and ſunſhine, ſome places ſhowers.
18—appearances of rain; *Smithfield*, ſhower, 0,3 inch.
19—rain; *Warw.* 3 inches, very little or none in many other places.
20, 21—*Sund.* fair, ſhowers, thunder and lightning in ſome places.
22—cloudy, rain; *Moon's laſt quarter.* *Warw.* 0,5 inch. *Smithf.* 0,4 inch.
23, 24, 25, 26—fair, a fine ſeaſon, flying clouds, briſk winds, light ſhowers in ſome places.
27—*Sund.* cloudy, rain; *Warw.* 3 in. very little in many other places; *Smithfield*, 0,2 inch.
28, 29, 30, 31—changeable weather; fair, cloudy, and light ſhowers each day; *Deerf.* & *Warw.* rain more copious. *Full Moon.*

Depth of water fallen in rain—Warwick 10,75 inch. Smithfield 2,40 inch.

Maſon, July, 1806.

On Thurſday, 10th inſtant, we experienced, in the weſterly part of this town, a very diſtreſſing and terrible hail ſtorm. A little before night a cloud was ſeen gathering in the north; it ſoon became very black, and appeared in great commotion; its approach was with rapidity, and juſt after ſunſet we began to feel its dire effects. The diſcharge of hail and rain, accompanied with tremendous wind, was beyond what was perhaps ever known in this place before. The direction of the cloud was from north about due ſouth, and its centre about on the line between this town and New Ipſwich. We learn that it begun in Greenfield, and did much damage in that town, in Peterborough, and Temple. With us the hail did not extend much over a mile in width, to do material injury, nor in a ſouth direction but little way into Aſhby: but within its extent the deſtruction is almoſt entire. Engliſh grain is beaten down, and ſtraws broken off. Indian corn not only torn, but in ſome places the ſtalks broken and bruiſed off, and carried away. Graſs is laid flat to the ground, and much of it cut off by the hail; and in places where the water formed a current, is buried under the earth and rubbiſh. All kinds of garden ſauce are cut to the ground. Apple trees are very much bruiſed, as is what fruit remains on the trees. Many, both fruit and foreſt trees, are torn up. Thus, in a moment, the pleaſing expectations of the induſtrious farmer are entirely cut off. There was no damage done to buildings in this town, except breaking the glaſs on the windward ſides of houſes. (*Rev.*) E. HILL.

Warwick, July, 1806.

This month, previous to the 19th, has been extremely dry, and vegetation ſeemed to retreat: ſince that time we have had plentiful rains; the drooping plant receives new vigor, and the whitened hills reſume their verdure. Corn has a very promiſing appearance. Winter rye was ripe about the 25th: the ingathering has been delayed, and the grain ſome damaged by the rains.—The *ſtate of health* is very favorable. W. C.

Smithfield, July* 31, 1806.

Rivers and brooks very low. Vegetables look tolerably well. Winter rye and wheat have ſucceeded very well, except on ſome low lands, where they were damaged by the froſt on the 23d of May; but ſpring grain has been conſiderably affected by blaſt. Hay came in conſiderably ſhort of laſt year.—A general time of health.

Deerfield, July 31, 1806.

Progreſs of vegetation, &c.—Black and red cherries ripe the 6th of the month. Cucumbers, in moſt of our gardens, fit for uſe the 12th. Our people began to reap the 14th: the crops of Engliſh grain are excellent: little or no damage from the fly. In this town great benefit is derived from the uſe of *gypſum*, or plaſter of Paris. A farmer here, this ſeaſon raiſed thirty buſhels of wheat on an acre of ground, on which, in May laſt, two and an half buſhels of plaſter were ſowed. This was an old field; and without plaſter, has heretofore produced but ten buſhels of *rye* per acre; and this was reckoned a good crop for the land. Large tracts of land in this town, which have formerly been eſteemed of little value, are, by the uſe of plaſter, now tranſformed to fertile fields; and the produce from them is nearly equal to our beſt interval lands. This improvement in agriculture begins to check emigrations to new countries: and many who, from the ſterility of their farms, hardly procured ſubſiſtance for their families, now find ample ſupplies, without the laborious taſk of moving to and clearing up new farms in the weſtern regions.

State of health, &c.—The month has been healthy in this and the neighboring towns. The lady whoſe caſe was mentioned in my obſervations for May laſt, died the 8th of this month. She had reſided eleven weeks in the ſtable; and had become ſo attached to it, that it was with conſiderable reluctance ſhe quitted it: this ſhe did only fourteen days before her death. The place in which ſhe reſided, was a decent room, fitted up in a building adjoining the dwelling houſe: a floor was laid over

* *June.*—From the 20th to the 25th, the ſmall limbs of pear trees, quinces and ſome apple trees, died. The leaves began to wither firſtly at or near the extremities of the limbs, and proceeded gradually towards the trunk. The ſame kind of trees, in the ſame neighborhood, were very differently affected; ſome ſhewing ſcarcely any dead leaves, while others have but few live ones.

the cows, in which were openings, to admit the effluvia from below. A ſmall iron ſtove was kept in the room with the patient, for the purpoſe of keeping up a proper temperature of air in cool weather: but it was ſeldom neceſſary to uſe the ſtove, for the air was kept warm by the cows. Although this mode of treatment proved ineffectual, it ought not to prevent further trials; for, if we may believe doctor Beddoes, very extraordinary cures have been effected by it. In the caſe above mentioned, it is ſuppoſed that the life of the patient was lengthened, for when ſhe entered the ſtable ſhe appeared to be far advanced in the diſorder; and it is probable that there exiſted a prediſpoſition to the diſeaſe.—This diſeaſe ſeems not to have completed its ravages in this devoted family.* The father was taken with it about the 20th of May, and has declined very rapidly: he now appears to be near his end. He will make the fourth death in the family within four years. Another of the family, a ſon, has lately been attacked with an *hæmoptyſis*, and continues in a feeble ſtate.—This family have been healthy, till within about four years; were brought up in the healthful employment of agriculture, and were remarkable for their induſtry and temperance. Four years ago they made ſome additions and improvements in their dwelling houſe: the rooms, previous to this, were rather open and cold; they are now cloſe and warm.

Query.—Could this alteration be inſtrumental in exciting the diſeaſe into action, admitting the family to be prediſpoſed to it?

E. HOYT.

* The name of this family is SHELDON.

NOTES.

"*OBSERVATIONS and Experiments on the Canker Worm,*" are very thankfully received, and will appear in our next number.

THE SEASON.

Very dry, in the vicinity of Boſton, previous to the 22d of this inſtant, when was experienced one of the fineſt ſhowers we have witneſſed this ſeaſon. The 23d alſo was a wet day.

"——All day long the full-diſtended clouds
Indulg'd their genial ſtores."

Wells and ſprings of water very low.

Boſton, Auguſt, 1806.

Errata.—The following errata ran through ſome part of the impreſſion of our laſt number:—Page 109, line 6, "*goes,*" corrected, *went*. Page 111, line 23, "*Alcleberan,*" corrected, *Aldebaran*.

CONDITIONS OF THE REGISTER.

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